

IAF HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Governmental Human Spaceflight Programmes (Overview) (1)

Author: Dr. Tara Ruttley

National Aeronautics and Space Administration (NASA), United States, tara.m.ruttley@nasa.gov

Dr. Neysa Call

National Aeronautics and Space Administration (NASA), United States, neysa.m.call@nasa.gov

Dr. James Green

National Aeronautics and Space Administration (NASA), United States, james.green@nasa.gov

BACK TO STAY: NASA'S CAMPAIGN TO SUSTAINABLY RETURN HUMANS TO THE MOON

Abstract

Space Policy Directive-1 (SPD-1) charges NASA to develop “an innovative and sustainable program” that returns humans to the moon for long-term exploration, followed by human missions to Mars. The Office of Chief Scientist collaborates with directorates within NASA, as well as with other government agencies, to develop a working definition of sustainability. Studying the requirements, challenges, and lessons learned of analog sites in hostile environments on Earth will inform a framework for human sustainability requirements beyond Low Earth Orbit (LEO). This effort will increase awareness of the significance of a sustainable approach for lunar activities within NASA and across stakeholder groups. This paper will provide an overview of NASA's scientific activities currently underway to support sustainability goals, including how various programs are aligned to promote collaboration for successful scientific outcomes. Future potential scientific trajectories within the agency will also be discussed.